

Work Order ID 50936

August 15, 2009 9:31:55 AM



Page 1

Item ID: D3688-3

Accept



Setup Start



Revision ID: B

Stop



Item Name: STUD

Start Date: 08/14/2009 Start Qty: 16.00



Cust Item ID:

Required Date: 08/19/2009 Req'd Qty: 16.00

Customer:

Reference:

Approvals: Process Plan: mf

Date: 09-08-15

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3688	Rev B								

100

0.00



BAND SAW

SA 09/08/15

16 ✓

Bandsav

Memo

0.00

Jeaspa Bandsaw

DO NOT USE CHOP SAW

☐ Cut blank 9.424" long

110

0.00



DOOSAN LATHE

SA 09/08/15

16 ✓

Doosan

Memo

0.00

Doosan Lathe

1-Turn as per Folio FA717 Rev: _____ & Dwg D3688 Rev: _____ ☐ 2-Deburr per dwg D3688

120

0.00



QC2- Inspect parts off machine FAI/FAIB

SA 09/08/15

16 ✓

QC

Memo

0.00

Quality Control

Work Order ID 50936

August 15, 2009 9:31:55 AM



Page 2

Item ID: D3688-3

Accept



Setup Start



Revision ID: B

Stop



Item Name: STUD

Start Date: 08/14/2009 Start Qty: 16.00



Cust Item ID:

Required Date: 08/19/2009 Req'd Qty: 16.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 Lathe Conv Conventional Lathe	CONVENTIONAL LATHE Memo Face to finished length as per dwg D3688 AND center drill as per Dwg D3688	0.00 0.00	SA 09/08/15			16	0		
140 QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00	SA 09/08/15			16	0		
150 Doosan Doosan Lathe	DOOSAN LATHE Memo 1- Turn as per Folio FA717 Rev: <u>B</u> & Dwg D3688 Rev: <u>B</u> □2-Deburr per dwg D3688	0.00 0.00	SA 09/08/16			16	0		

Work Order ID 50936

August 15, 2009 9:31:55 AM



Page 3

Item ID: D3688-3

Accept



Setup Start



Revision ID: B

Stop



Item Name: STUD

Start Date: 08/14/2009 Start Qty: 16.00



Cust Item ID:

Required Date: 08/19/2009 Req'd Qty: 16.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC2- Inspect parts off machine FAI/FAIB

0.00

SA 09/08/16

16

QC

Memo

0.00

Quality Control

170

QC8- Inspect parts - second check

0.00

amf 09/08/17

16

QC

Memo

0.00

Quality Control

180

PURCHASING

0.00

CZ 09/08/19

(16)

Purchasing

Memo

0.00

Purchasing

Issue P/O: 10220 ☐ LPI Per ASTM 1417 LEVEL
2 ☐ Certificate of conformaty is required

Work Order ID 50936

August 15, 2009 9:31:55 AM



Page 4

Item ID: D3688-3

Accept



Setup Start



Revision ID: B

Stop



Item Name: STUD

Start Date: 08/14/2009 Start Qty: 16.00



Cust Item ID:

Required Date: 08/19/2009 Req'd Qty: 16.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 Packaging	Receive & Inspect for Damage & Mat'l Certs	0.00							
Packaging	Memo Ensure certificate of conformity is attached	0.00							
200 QC	QC5- Inspect part completeness to step on W/O	0.00							
Quality Control	Memo	0.00							
210 Packaging	Identify as per dwg & Stock Location: <u>GA</u>	0.00							
Packaging	Memo	0.00							

169/8/18 (16)

m/ 09 08 19

83 08/07/19 (16)

Work Order ID 50936

August 15, 2009 9:31:55 AM



Page 5

Item ID: D3688-3

Revision ID: B

Item Name: STUD

Start Date: 08/14/2009 Start Qty: 16.00

Required Date: 08/19/2009 Req'd Qty: 16.00

Reference:

Accept



Setup Start



Stop



Cust Item ID:

Customer:



Run Start



Stop



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

220

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/08/19

MF 09-08-19

Picklist Print

Page 1

August 15, 2009 9:31:54 AM

Work Order ID: 50936



Parent Item: D3688-3RevB



Parent Item Name: STUD

Start Date: 08/14/2009

Required Date: 08/19/2009

Comments:

Start Qty: 16.00

Required Qty: 16.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M174PH-H900R1.000		Purchased	No			100	f	14.2700	13.2716			
17-4SS H900 ROUND BAR 1.00												

Warehouse Loc Qty Loc Code

Location

Main Warehouse

MAT

14.27

110213

~~0.3~~

110750 ✓

11.26

110990

~~0.87~~

111055

1.84

11112374 AL 08.08.19 12.56'

DART AEROSPACE LTD		Work Order: 50936
Description: Stud		Part Number: D3688-3
Inspection Dwg: D3688	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.695	+/-0.010	.700	/			
0.625	+0.004/-0.000	Ø.627	/			
1.25	+0.000/-0.03	1.235	/			
118°	0.5°	118°	/			
R0.03	+/-0.030	R.03	/			
0.11 Ref	+/-0.030	.11	/			
90°	0.5°	90°	/			
Ø0.189	+0.005/-0.001	Ø.191	/			
1.31	+/-0.030	1.31	/			
1.65	+/-0.030	1.65	/			
0.870	+0.000/-0.010	.863	/			
Ø0.659	+0.000/-0.015	Ø.653	/			
9.324	+/-0.015	9.323	/			
2.90	+/-0.030	2.907	/			
3/4-16UNF-2A	N/A	3/4-16 UNF-2A	/			
0.075 x 45°	+/-0.010 x 0.5°	.075 x 45°	/			
0.370	+0.000/-0.010	.363	/			
Ø0.189	+0.005/-0.001	Ø.191	/			
R0.25	+/-0.030	R.25	/			
R0.50	+/-0.030	R.500	/			

Measured by: SA	Audited by: [Signature]	Prototype Approval:	N/A
Date: 09/08/16	Date: 09/08/17	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	09.05.11	New Issue	KJ	[Signature]

8

7

6

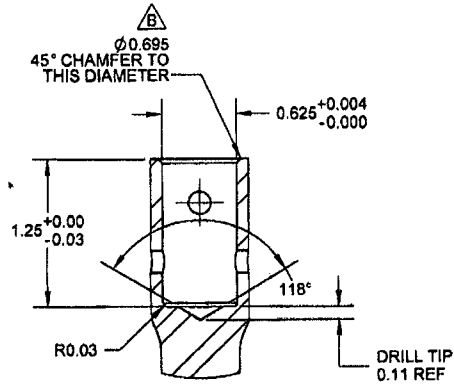
5

4

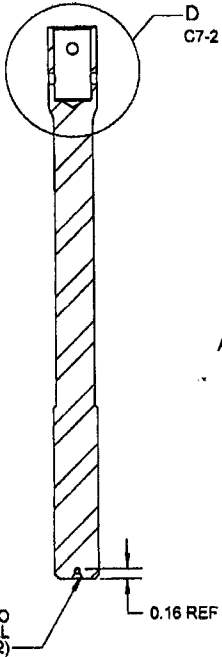
3

2

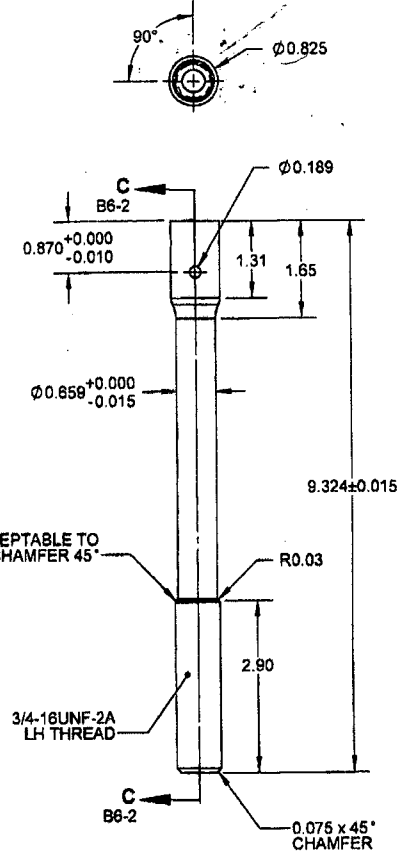
1



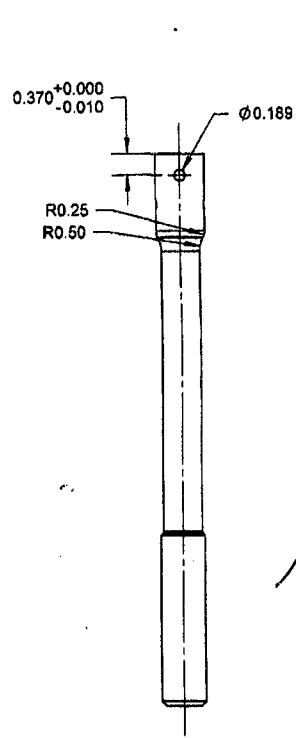
DETAIL D
SCALE 2X
D6-2



SECTION C-C
D4-2



D3688-3 STUD



50936

W 09/07/15
UNDER REVIEW
09/07/15
CHANGE CENTER DRILL
TO #4

RELEASED
08/12/15

- NOTES:**
- 1) MATERIAL: 17-4PH STAINLESS STEEL ROUND BAR PER AMS 5643 H-900 CONDITION
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.97 lb
 - 8) LPI PER ASTM 1417 LEVEL 2

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	RF	D3688	SHEET 2 OF 4
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	STUD	NTS
DATE	08.11.24	COPYRIGHT © 2008 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			



LIQUID PENETRANT TEST REPORT

P- 14947

CLIENT	DART Aerospace	DATE	Aug 18-2009	PAGE	1	OF	1
ATTENTION	LINDA / CHANTEL	ACUREN JOB NO.	188-09-001487	TIME	AM	<input checked="" type="checkbox"/>	PM
ADDRESS	1270 ABERDEEN ST. HAWKESBURY ON. K6H 1K7	PO/NO.	10220	WORK LOCATION	HAWKESBURY SHOP		
PROJECT	E.P.I. ON MACHINED PARTS AND CROSS TUBES						
ITEM(S) EXAMINED	34 ITEMS						

JOB DESCRIPTION	PROCEDURE NO. LT-1002	REV./DATE	TECHNIQUE NO. LT-1002	REV./DATE
PART NO.	MATERIAL STAINLESS STEEL THICKNESS ALUMINE ALUMINUM			
SCOPE	WET FLOURESCENT LIQUID PENETRANT INSPECTION CARRIED OUT 100% EXTERNAL			

TEST DETAILS						
METHOD	<input checked="" type="checkbox"/> FLUORESCENT	<input type="checkbox"/> VISIBLE	<input checked="" type="checkbox"/> WATER WASH	<input type="checkbox"/> SOLVENT REMOVABLE	<input type="checkbox"/> POST EMULSIFIED	
FAMILY BRAND	MAGNAFLUX		BLACK LIGHT S/N	16459	<input type="checkbox"/> OUTPUT > 1000 μ W/cm ²	<input type="checkbox"/> AMBIENT < 2 fc
PENETRANT	2LG7	MINIMUM DWELL TIME	45 MIN.	LIGHTING EQUIP.	<input type="checkbox"/> FLASHLIGHT	<input type="checkbox"/> TROUBLELIGHT
PENETRANT REMOVER	H2O	MINIMUM DRY TIME	> 10 MIN.	OTHER	LABINO	
DEVELOPER	SKD 52	MINIMUM DWELL TIME	10 MIN.	LIGHT METER S/N	CAL DUE DATE	
DEVELOPER TYPE	<input checked="" type="checkbox"/> NON AQUEOUS	<input type="checkbox"/> AQUEOUS	<input type="checkbox"/> DRY	DEC. 8-2009		

TEST SURFACE					
SURFACE CONDITION	<input type="checkbox"/> AS GROUND	<input type="checkbox"/> AS WELDED	<input type="checkbox"/> MACHINED	<input type="checkbox"/> SHOT BLASTED	<input type="checkbox"/> CLEAN BARE METAL
SURFACE TEMPERATURE	<input type="checkbox"/> < -4°C/ 20°F	<input type="checkbox"/> -4°C/ 20°F TO 10°C/ 50°F	<input type="checkbox"/> 10°C/ 50°F TO 52°C/ 125°F	<input type="checkbox"/> > 52°C/ 125°F	

RESULTS- (<input type="checkbox"/> METRIC <input type="checkbox"/> IMPERIAL)			
ITEM	COMMENTS	ACCEPT	REJECT
1- CROSS TUBE .W.O. 50803		✓	
1- CROSS TUBE .W.O. 50802		✓	
1- CROSS TUBE .W.O. 51082		✓	
1- CROSS TUBE .W.O. 51081		✓	
1- CROSS TUBE .W.O. 51080		✓	
1- CROSS TUBE .W.O. 50804		✓	
1- CROSS TUBE .W.O. 50981		✓	
1- CROSS TUBE .W.O. 50980		✓	
7- STUDS .W.O. 50931		✓	
16- STUDS .W.O. 50936		✓	

ALL PARTS EXAMINED ON THIS
REPORT HAVE BEEN FOUND
ACCEPTABLE TO STD

MM 09 08 19

Scope of Services
The agreement of Acuren Group Inc. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of Acuren Group Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. Acuren Group Inc. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by Acuren Group Inc. In no event shall Acuren Group Inc.'s liability in respect of the services referred to herein exceed the amount paid for such services.

Standard of Care
In performing the services provided, Acuren Group Inc. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by Acuren Group Inc.

SIGNATURES			
CLIENT REPRESENTATIVE	WATT MURDOCH	Watt Murdoch	DTR # E-20071
TECHNICIAN (SIGNATURE):	M. Keith Johnston	M. Keith Johnston	REPORT REVIEWED BY:
NAME (PRINT):	M. Keith Johnston	NAME	INITIALS
CGSB LEVEL	II	CGSB LEVEL	
CGSB REG. No	6066	CGSB REG. No	